BRUHAT BANGALORE MAHANAGARA PALIKE

Name of Work: Improvements to Roads and Drains at Byarappa Garden, KNE College 4th Block,Kateramma Layout cross Roads in ward No 10 Doddabommasandra

BYATARAYANAPURA DIVISION

PRE-MEASUREMENTS

Name of Work :Improvements to Roads and Drains at Byarappa Garden, KNE College 4th Block,Kateramma Layout cross Roads in ward No 10 Doddabommasandra

	Pre measurements						
	Pre measurement recorded on: 11/03/2020						
Item No	**Discription of Item**	**No**	**Length**	**Breadth**	**Depth**	**Qty**	**Unit**
1	KSRRB M200-13.1. Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications. II. By Mechanical Means. A. Cement Concrete Grade M-15 &M-20. MORTH Specification No. 202(Page No. 139/ Item No. 18.20/ PWD SR 2018-19)						
	Byrappa Garden						
	Cross road from 1st to 5th cross						
		1	18.90	1.00	0.15	2.84	
		1	6.80	1.00	0.15	1.02	
		1	3.70	1.20	0.15	0.67	
		1	8.30	1.00	0.15	1.25	
		1	17.80	1.00	0.15	2.67	
		1	1.20	1.20	0.15	0.22	
		1	7.60	1.20	0.15	1.37	
		1	12.90	1.00	0.15	1.94	
					Present Qty	**11.96**	**Cum**

PMC

Assistant Engineer
Ward No.10

Asst. Executive Engineer,
Vidyaranya Pura Sub division

BBMP, Bangalore - 97

BVH Consulting Engineers Pvt. Ltd. Bangalore

Assistant Executive Engineer,
R.R. Nagar, Sub-Division,
KRIDL, BBMP, Bangalore

Name of Work :Improvements to Roads and Drains at Byarappa Garden, KNE College 4th Block,Kateramma Layout cross Roads in ward No 10 Doddabommasandra

Pre measurements

Pre measurement recorded on: 14/03/2020.

Item No	Discription of Item	No	Length	B1	B2	Avg Breadth	Depth	Qty	Unit
2	KSRRB 300-3. Earthwork excavation by manual means for roads, drains & similar works in ordinary soil invoiving , excavated surface leveled & sides neatly dressed , the disposed earth to be levelled neatly after breaking of clods complete as per specification MORTH/ Chapter 3. (Page No. 142/ Item No. 19.1/ PWD SR 2018-19)								
	Desilt								
	Byrappa Garden								
	Cross road from 1st to 5th cross	1	17.40	0.60	0.60	0.60	0.70	7.31	
		1	18.90	0.60	0.60	0.60	0.70	7.94	
		1	6.80	0.60	0.60	0.60	0.65	2.65	
		1	3.70	0.60	0.60	0.60	0.70	1.55	
		1	8.30	0.60	0.60	0.60	0.68	3.39	
		1	17.80	0.60	0.60	0.60	0.70	7.48	
		1	1.20	0.60	0.60	0.60	0.72	0.52	
		1	7.60	0.60	0.60	0.60	0.75	3.42	
		1	12.90	0.60	0.60	0.60	0.60	4.64	
	K.N.E. College 4th block								
	7th A Cross From Dead end								
	LHS	1	30.00	0.60	0.60	0.60	0.60	10.80	
		1	15.60	0.60	0.60	0.60	0.65	6.08	
	RHS	1	30.00	0.60	0.60	0.60	0.60	10.80	
		1	15.60	0.60	0.60	0.60	0.65	6.08	
	Ramakka-Dasappa Layout								
	Perpendiculer road from 2nd A cross								
	LHS	1	30.00	0.60	0.60	0.60	0.60	10.80	
		1	18.70	0.60	0.60	0.60	0.65	7.29	
	RHS	1	30.00	0.60	0.60	0.60	0.60	10.80	
	For New RCC Drain								
	Doddabommasandra Main road								
	From 2nd Main to 1st A main road								
		1	22.80	1.10	1.10	1.10	1.00	25.08	
		1	25.50	1.10	1.10	1.10	1.00	28.05	
	1st A Main road								
		1	15.20	1.10	1.10	1.10	1.00	16.72	
		1	3.60	1.10	1.10	1.10	1.00	3.96	
		1	21.50	1.10	1.10	1.10	1.00	23.65	
		1	5.45	1.10	1.10	1.10	1.00	6.00	
		1	2.50	1.10	1.10	1.10	1.00	2.75	
		1	2.35	1.10	1.10	1.10	1.00	2.59	
		1	25.50	1.10	1.10	1.10	1.00	28.05	238.4
	For New RCC Culvert								
	Byrappa Garden								

CAE

Assistant Executive Engineer
Vidyaranyapura Sub Division
BBMP, Bangalore-97

Item No	Discription of Item	No	Length	B1	B2	Avg Breadth	Depth	Qty	Unit
	Culvert @ 2nd cross	1	4.35	1.50	1.50	1.50	1.00	6.53	
	Culvert @ 3rd cross	1	4.20	1.50	1.50	1.50	1.00	6.30	
	Culvert @ 4th cross	1	3.00	1.50	1.50	1.50	1.00	4.50	
	For CC Road								
	Byrappa Garden								
	4th cross from Main road	2	15.00	1.15	1.20	1.18	0.30	10.58	
		2	15.00	1.20	1.25	1.23	0.30	11.03	
		2	6.90	1.25	1.20	1.23	0.30	5.07	
		1	18.00	4.45	5.75	5.10	0.45	41.31	
		1	6.20	5.75	5.60	5.68	0.45	15.83	
		1	9.70	5.60	5.60	5.60	0.45	24.44	
	3rd cross from Main road								
		2	15.00	1.10	1.25	1.18	0.30	10.58	
		2	15.00	1.25	1.20	1.23	0.30	11.03	
		2	5.70	1.20	1.20	1.20	0.30	4.10	
		1	15.00	4.50	4.50	4.50	0.45	30.38	
		1	11.85	4.50	4.95	4.73	0.45	25.20	
	2nd cross								
		1	15.00	4.25	4.45	4.35	0.45	29.36	
		1	15.00	4.45	4.70	4.58	0.45	30.88	
		1	7.90	4.70	5.00	4.85	0.45	17.24	
	Cross road from 1st to 5th cross								
		1	15.00	3.60	3.10	3.35	0.30	15.08	
		1	15.00	3.10	3.55	3.33	0.30	14.96	
		1	15.00	3.55	3.30	3.43	0.30	15.41	
		1	15.00	3.30	3.70	3.50	0.30	15.75	
		1	15.00	3.70	3.40	3.55	0.30	15.98	
		1	14.30	3.40	3.80	3.60	0.30	15.44	
	6th cross from Main road								
		1	20.00	4.75	4.60	4.68	0.30	28.05	
	1st A Main road								
		2	15.00	1.45	1.60	1.53	0.30	13.73	
		2	15.00	1.60	1.80	1.70	0.30	15.30	
		2	8.30	1.80	1.90	1.85	0.30	9.21	
		1	15.00	3.50	3.55	3.53	0.30	15.86	
		1	14.20	3.55	3.80	3.68	0.30	15.66	
	K.N.E. College 4th block								
	7th A Cross From Dead end								
		1	8.00	5.80	5.55	5.68	0.30	13.62	
		1	15.00	3.80	3.70	3.75	0.30	16.88	
		1	15.00	3.70	3.80	3.75	0.30	16.88	
		1	15.00	3.80	3.90	3.85	0.30	17.33	
		1	5.60	3.90	4.00	3.95	0.30	6.64	
	9th Cross From Main road								
		1	15.00	4.55	4.00	4.28	0.30	19.24	

Assistant Executive Engineer
Vijayanagara Sub Division
BBMP, Bangalore - 97

Item No	Discription of Item	No	Length	B1	B2	Avg Breadth	Depth	Qty	Unit
		1	15.00	4.00	4.20	4.10	0.30	18.45	
		1	14.30	4.20	3.90	4.05	0.30	17.37	
		1	5.80	3.45	3.45	3.45	0.30	6.00	
	10th Cross From Main road								
		1	15.00	5.80	4.85	5.33	0.30	23.96	
		1	15.00	4.85	4.30	4.58	0.30	20.59	
		1	18.00	4.30	4.20	4.25	0.30	22.95	
	Vinayaka Temple Surroundings								
		1	2.75	3.70	3.70	3.70	0.30	3.05	
		1	3.45	3.60	3.60	3.60	0.30	3.73	
		1	5.80	10.25	10.25	10.25	0.30	17.84	
		1	18.50	10.20	10.60	10.40	0.30	57.72	
		1	15.60	1.60	1.60	1.60	0.30	7.49	
		1	18.80	1.50	1.60	1.55	0.30	8.74	
	Ramakka-Dasappa Layout								
	2nd A cross								
		1	15.00	3.80	3.40	3.60	0.30	16.20	
		1	18.40	3.40	3.60	3.50	0.30	19.32	
		1	7.55	3.90	3.30	3.60	0.30	8.15	
		1	10.60	3.75	4.30	4.03	0.30	12.80	
	Perpendiculer road from 2nd A cross								
		1	3.70	5.40	5.20	5.30	0.30	5.88	
		1	14.80	4.70	3.70	4.20	0.30	18.65	
		1	15.00	3.30	3.40	3.35	0.30	15.08	
		1	15.00	3.40	3.80	3.60	0.30	16.20	
		1	12.30	3.80	3.60	3.70	0.30	13.65	
		1	8.50	2.90	2.60	2.75	0.30	7.01	
	Kateramma Layout								
	1st cross								
		1	15.00	4.85	4.30	4.58	0.30	20.59	
		1	15.00	4.30	4.55	4.43	0.30	19.91	
		1	18.70	4.55	5.00	4.78	0.30	26.79	
	2nd cross								
		1	15.00	5.00	4.70	4.85	0.30	21.83	
		1	15.00	4.70	4.55	4.63	0.30	20.81	
		1	19.00	4.55	4.00	4.28	0.30	24.37	
	Deductions								
	Byrappa Garden								
	Cross road from 1st to 5th cross								
	Electric Pole	-5	0.20	0.20	0.20	0.20	0.30	-0.06	
	Man Hole	-3	(3.142*0.9*0.9/4)				0.30	-0.57	
	6th cross from Main road								
	Man Hole	-2	(3.142*0.9*0.9/4)				0.30	-0.38	
	K.N.E. College 4th block								
	7th A Cross From Dead end								
	Electric Pole	-1	0.20	0.20	0.20	0.20	0.30	-0.01	
	Trees	-2	(3.142*0.45*0.45/4)				0.30	-0.10	
	10th Cross From Main road								

Assistant Executive Engineer
Vijayanagar Sub Division
BBMP, Bangalore-40

Item No	Discription of Item	No	Length	B1	B2	Avg Breadth	Depth	Qty	Unit
	Electric Pole	-1	0.20	0.20	0.20	0.20	0.30	-0.01	
	Man Hole	-2		(3.142*0.9*0.9/4)			0.30	-0.38	
	Vinayaka Temple Surroundings								
	Chamber	-1	2.30	1.90	1.90	1.90	0.30	-1.31	
	Steps	-1	2.45	0.85	0.85	0.85	0.30	-0.62	
		-1	1.00	0.35	0.35	0.35	0.30	-0.11	
	Column	-4	0.40	0.40	0.40	0.40	0.30	-0.19	
	Temple	-1	4.90	5.12	5.12	5.12	0.30	-7.53	
		-1	3.15	2.50	2.50	2.50	0.30	-2.36	
	Ramakka-Dasappa Layout								
	2nd A cross								
	Ramp	-1	3.00	0.20	0.20	0.20	0.30	-0.18	
	Kateramma Layout								
	1st cross								
	Ramp	-1	1.30	1.00	1.00	1.00	0.30	-0.39	
		-1	1.00	0.40	0.40	0.40	0.30	-0.12	
		-1	4.00	1.00	1.00	1.00	0.30	-1.20	
		-1	3.00	1.00	1.00	1.00	0.30	-0.90	
		-1	4.00	0.50	0.50	0.50	0.30	-0.60	
	Man Hole	-1		(3.142*0.9*0.9/4)			0.30	-0.19	
	2nd cross								
	Ramp	-1	5.00	0.30	0.30	0.30	0.30	-0.45	
	Man Hole	-1		(3.142*0.9*0.9/4)			0.30	-0.19	
							Present Qty	**1261.01**	**Cum**

PMC

Assistant Engineer
Ward No.10

Asst. Executive Engineer,
Vidyaranya Pura Sub division

BVH Consulting Engineers Pvt. Ltd. Bangalore

Assistant Executive Engineer,
R.R. Nagar, Sub-Division,
KRIDL, BBMP, Bangalore

Name of Work :Improvements to Roads and Drains at Byarappa Garden, KNE College 4th Block,Kateramma Layout cross Roads in ward No 10 Doddabommasandra

	Detailed measurements						
	Detailed measurement recorded on: 18/03/2020.						
Item No	**Discription of Item**	**No**	**Length**	**Breadth**	**Depth**	**Qty**	**Unit**
3	Removing And Refixing stone slabs of drains and pointing in C.M (1:3) (Page No.27/ Item No.5.33/ PWD SR 2018-19)						
	Removing and refixing						
	K.N.E. College 4th block						
	7th A Cross From Dead end						
	LHS	1	25.20	0.90		22.68	
		1	12.60	0.90		11.34	
	RHS	1	26.60	0.75		19.95	
		1	11.60	0.75		8.70	
	Ramakka-Dasappa Layout						
	Perpendiculer road from 2nd A cross						
	LHS	1	22.00	0.75		16.50	
	Byrappa Garden						
		1	17.40	0.90		15.66	
					Present Qty	**94.83**	**Sqm**

PMC

Assistant Engineer
Ward No.10

Asst. Executive Engineer,
Vidyaranya Pura Sub division

BVH Consulting Engineers Pvt. Ltd. Bangalore

Assistant Executive Engineer,
R.R. Nagar, Sub-Division,
KRIDL, BBMP, Bangalore

Name of Work :Improvements to Roads and Drains at Byarappa Garden, KNE College 4th Block,Kateramma Layout cross Roads in ward No 10 Doddabommasandra

Pre measurements

Pre measurement recorded on: 13/05/2020

Item No	Discription of Item	No	Length	B1	B2	Avg Breadth	Depth	Qty	Unit
4	KSRRB M2100-10. Providing and laying Plain cement concrete of mix 1:3:6 with OPC @ 220kgs, with crushed 40mm and down size graded granite metal coarse aggregates @0.89cum and fine aggregates @ 0.46cum, in foundation mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days including cost of all materials, labour, HOM curing, form works, scaffolding and centering complete as per specifications. (P.No-222,I No-27.18 PWD SR 2018-19)								
	For New RCC Drain								
	Doddabommasandra Main road								
	From 2nd Main to 1st A main road								
		1	22.80	1.10	1.10	1.10	0.15	3.76	
		1	25.50	1.10	1.10	1.10	0.15	4.21	
	1st A Main road								
		1	15.20	1.10	1.10	1.10	0.15	2.51	
		1	3.60	1.10	1.10	1.10	0.15	0.59	
		1	21.50	1.10	1.10	1.10	0.15	3.55	
		1	5.45	1.10	1.10	1.10	0.15	0.90	
		1	2.50	1.10	1.10	1.10	0.15	0.41	
		1	2.35	1.10	1.10	1.10	0.15	0.39	
		1	25.50	1.10	1.10	1.10	0.15	4.21	
	For New RCC Culvert								
	Byrappa Garden								
	Culvert @ 2nd cross	1	4.35	1.50	1.50	1.50	0.15	0.98	
	Culvert @ 3rd cross	1	4.20	1.50	1.50	1.50	0.15	0.95	
	Culvert @ 4th cross	1	3.00	1.50	1.50	1.50	0.15	0.68	
	For CC Road								
	Byrappa Garden								
	4th cross from Main road	2	15.00	1.15	1.20	1.18	0.15	5.29	
		2	15.00	1.20	1.25	1.23	0.15	5.51	
		2	6.90	1.25	1.20	1.23	0.15	2.54	
		1	18.00	4.45	5.75	5.10	0.15	13.77	
		1	6.20	5.75	5.60	5.68	0.15	5.28	
		1	9.70	5.60	5.60	5.60	0.15	8.15	
	3rd cross from Main road								
		2	15.00	1.10	1.25	1.18	0.15	5.29	
		2	15.00	1.25	1.20	1.23	0.15	5.51	
		2	5.70	1.20	1.20	1.20	0.15	2.05	
		1	15.00	4.50	4.50	4.50	0.15	10.13	
		1	11.85	4.50	4.95	4.73	0.15	8.40	
	2nd cross								
		1	15.00	4.25	4.45	4.35	0.15	9.79	
		1	15.00	4.45	4.70	4.58	0.15	10.29	

Assistant Executive Engineer, Bidarahalli Sub Division, BBMP, Bangalore-97

Item No	Discription of Item	No	Length	B1	B2	Avg Breadth	Depth	Qty	Unit
		1	7.90	4.70	5.00	4.85	0.15	5.75	
	Cross road from 1st to 5th cross								
		1	15.00	3.60	3.10	3.35	0.15	7.54	
		1	15.00	3.10	3.55	3.33	0.15	7.48	
		1	15.00	3.55	3.30	3.43	0.15	7.71	
		1	15.00	3.30	3.70	3.50	0.15	7.88	
		1	15.00	3.70	3.40	3.55	0.15	7.99	
		1	14.30	3.40	3.80	3.60	0.15	7.72	
	6th cross from Main road								
		1	20.00	4.75	4.60	4.68	0.15	14.03	
	1st A Main road								
		2	15.00	1.45	1.60	1.53	0.15	6.86	
		2	15.00	1.60	1.80	1.70	0.15	7.65	
		2	8.30	1.80	1.90	1.85	0.15	4.61	
		1	15.00	3.50	3.55	3.53	0.15	7.93	
		1	14.20	3.55	3.80	3.68	0.15	7.83	
	K.N.E. College 4th block								
	7th A Cross From Dead end								
		1	8.00	5.80	5.55	5.68	0.15	6.81	
		1	15.00	3.80	3.70	3.75	0.15	8.44	
		1	15.00	3.70	3.80	3.75	0.15	8.44	
		1	15.00	3.80	3.90	3.85	0.15	8.66	
		1	5.60	3.90	4.00	3.95	0.15	3.32	
	9th Cross From Main road								
		1	15.00	4.55	4.00	4.28	0.15	9.62	
		1	15.00	4.00	4.20	4.10	0.15	9.23	
		1	14.30	4.20	3.90	4.05	0.15	8.69	
		1	5.80	3.45	3.45	3.45	0.15	3.00	
	10th Cross From Main road								
		1	15.00	5.80	4.85	5.33	0.15	11.98	
		1	15.00	4.85	4.30	4.58	0.15	10.29	
		1	18.00	4.30	4.20	4.25	0.15	11.48	
	Vinayaka Temple Surroundings								
		1	2.75	3.70	3.70	3.70	0.15	1.53	
		1	3.45	3.60	3.60	3.60	0.15	1.86	
		1	5.80	10.25	10.25	10.25	0.15	8.92	
		1	18.50	10.20	10.60	10.40	0.15	28.86	
		1	15.60	1.60	1.60	1.60	0.15	3.74	
		1	18.80	1.50	1.60	1.55	0.15	4.37	
	Ramakka-Dasappa Layout								
	2nd A cross								
		1	15.00	3.80	3.40	3.60	0.15	8.10	
		1	18.40	3.40	3.60	3.50	0.15	9.66	
		1	7.55	3.90	3.30	3.60	0.15	4.08	
		1	10.60	3.75	4.30	4.03	0.15	6.40	
	Perpendiculer road from 2nd A cross								

Assistant Executive Engineer
Vijayapura sub Division
BBMP, Bangalore - 0

Item No	Discription of Item	No	Length	B1	B2	Avg Breadth	Depth	Qty	Unit
		1	3.70	5.40	5.20	5.30	0.15	2.94	
		1	14.80	4.70	3.70	4.20	0.15	9.32	
		1	15.00	3.30	3.40	3.35	0.15	7.54	
		1	15.00	3.40	3.80	3.60	0.15	8.10	
		1	12.30	3.80	3.60	3.70	0.15	6.83	
		1	8.50	2.90	2.60	2.75	0.15	3.51	
	Kateramma Layout								
	1st cross								
		1	15.00	4.85	4.30	4.58	0.15	10.29	
		1	15.00	4.30	4.55	4.43	0.15	9.96	
		1	18.70	4.55	5.00	4.78	0.15	13.39	
	2nd cross								
		1	15.00	5.00	4.70	4.85	0.15	10.91	
		1	15.00	4.70	4.55	4.63	0.15	10.41	
		1	19.00	4.55	4.00	4.28	0.15	12.18	
	Deductions								
	Byrappa Garden								
	Cross road from 1st to 5th cross								
	Electric Pole	-5	0.20	0.20	0.20	0.20	0.15	-0.03	
	Man Hole	-3	(3.142*0.9*0.9/4)				0.15	-0.29	
	6th cross from Main road								
	Man Hole	-2	(3.142*0.9*0.9/4)				0.15	-0.19	
	K.N.E. College 4th block								
	7th A Cross From Dead end								
	Electric Pole	-1	0.20	0.20	0.20	0.20	0.15	-0.01	
	Trees	-2	(3.142*0.45*0.45/4)				0.15	-0.05	
	10th Cross From Main road								
	Electric Pole	-1	0.20	0.20	0.20	0.20	0.15	-0.01	
	Man Hole	-2	(3.142*0.9*0.9/4)				0.15	-0.19	
	Vinayaka Temple Surroundings								
	Chamber	-1	2.30	1.90	1.90	1.90	0.15	-0.66	
	Steps	-1	2.45	0.85	0.85	0.85	0.15	-0.31	
		-1	1.00	0.35	0.35	0.35	0.15	-0.05	
	Column	-4	0.40	0.40	0.40	0.40	0.15	-0.10	
	Temple	-1	4.90	5.12	5.12	5.12	0.15	-3.76	
		-1	3.15	2.50	2.50	2.50	0.15	-1.18	
	Ramakka-Dasappa Layout								
	2nd A cross								
	Ramp	-1	3.00	0.20	0.20	0.20	0.15	-0.09	
	Kateramma Layout								
	1st cross								
	Ramp	-1	1.30	1.00	1.00	1.00	0.15	-0.20	
		-1	1.00	0.40	0.40	0.40	0.15	-0.06	
		-1	4.00	1.00	1.00	1.00	0.15	-0.60	
		-1	3.00	1.00	1.00	1.00	0.15	-0.45	
		-1	4.00	0.50	0.50	0.50	0.15	-0.30	
	Man Hole	-1	(3.142*0.9*0.9/4)				0.15	-0.10	

Checked

Assistant Executive Engineer
Vidyaranyapura Sub Division
BBMP, Bangalore

tem No	Discription of Item	No	Length	B1	B2	Avg Breadth	Depth	Qty	Unit
	2nd cross								
	Ramp	-1	5.00	0.30	0.30	0.30	0.15	-0.23	
	Man Hole	-1		(3.142*0.9*0.9/4)			0.15	-0.10	
							Present Qty	**489.99**	**Cum**

PMC

BVH Consulting Engineers Pvt. Ltd. Bangalore

Assistant Engineer
Ward No.10

Asst. Executive Engineer,
Vidyaranya Pura Sub division

Assistant Executive Engineer,
R.R. Nagar, Sub-Division,
KRIDL, BBMP, Bangalore

Name of Work :Improvements to Roads and Drains at Byarappa Garden, KNE College 4th Block,Kateramma Layout cross Roads in ward No 10 Doddabommasandra

	Premeasurements						
	Pre measurement recorded on: 19/05/2020						
Item No	**Discription of Item**	**No**	**Length**	**Breadth**	**KG/Mtr**	**Kg**	**Unit**
6	KSRB 4.9.2 : Providing T.M.T steel reinforcement for R.C.C workincluding straightening, cutting, bending, hooking, placing in position,lapping and / or welding wherever required, tying with binding wire andanchoring to the adjoining members wherever necessary complete asper design (laps, hooks and wastage shall not be measured and paid)cost of materials, labour, HOM of machinery complete as perspecifications.Specification No. KBS 4.6.3 (I No-28.8.2,P No-229 PWD SR 2018-19)						
	For RCC Drain						
	From 2nd Main to 1st A main road						
	Total Drain length=48.30 mtr						
	Main bar 10mm dia bar @ 125mm c/c						
	0.61kg/mtr						
	No of U Bars:386 no's	386	2.30		0.61	542.12	
	Main bar 10mm dia bar @ 125mm c/c						
	0.61kg/mtr	18	48.30		0.61	530.33	
	1st A Main road						
	Total Drain length=76.10 mtr						
	Main bar 10mm dia bar @ 125mm c/c						
	0.61kg/mtr						
	No of U Bars:609 no's	609	2.30		0.61	854.15	
	Main bar 10mm dia bar @ 125mm c/c						
	0.61kg/mtr	18	76.10		0.61	835.58	
	Culverts						
	Culvert @ 2nd cross						
	Total Drain length=4.35 mtr						
	Main bar 12mm dia bar @ 150mm c/c						
	0.89kg/mtr						
	Top	35	2.40		0.89	74.33	
	Bottom	35	2.75		0.89	85.17	
	Distribution bar 10mm dia @ 125mm c/c						
	0.61kg/mtr Top	19	4.35		0.61	50.95	
	Bottom	22	4.35		0.61	58.38	
	Culvert @ 3rd cross						
	Total Drain length=4.20 mtr						
	Main bar 12mm dia bar @ 150mm c/c						
	0.89kg/mtr						
	Top	34	2.40		0.89	71.77	
	Bottom	34	2.75		0.89	82.24	
	Distribution bar 10mm dia @ 125mm c/c						
	0.61kg/mtr Top	19	4.20		0.61	49.19	

Item No	Discription of Item	No	Length	Breadth	KG/Mtr	Kg	Unit
	Bottom	22	4.20		0.61	56.36	
	Culvert @ 4th cross						
	Total Drain length=3.00 mtr						
	Main bar 12mm dia bar @ 150mm c/c						
	0.89kg/mtr						
	Top	24	2.40		0.89	51.26	
	Bottom	24	2.75		0.89	58.74	
	Distribution bar 10mm dia @ 125mm c/c						
	0.61kg/mtr Top	19	3.00		0.61	35.14	
	Bottom	22	3.00		0.61	40.26	
					Present Qty	**3475.97**	**Kg**
					Present Qty	**3.48**	**Tonne**

PMC

BVH Consulting Engineers Pvt. Ltd. Bangalore

Assistant Engineer
Ward No.10

Asst. Executive Engineer,
Vidyaranya Pura Sub division

Assistant Executive Engineer
Vidyaranyapura Sub-Division
BBMP, Bangalore-97

Assistant Executive Engineer,
R.R. Nagar, Sub-Division,
KRIDL, BBMP, Bangalore

Name of Work :Improvements to Roads and Drains at Byarappa Garden, KNE College 4th									
	Pre measurements								
	Pre measurement recorded on: 11/03/2020								
Item No	Discription of Item	No	Length	B1	B2	Breadth	Depth	Qty	Unit
9	KSRRB M200-24. Dismantling of cement concrete pavement by mechanical means using pneumatic tools, breaking to pieces not exceeding 0.02 cum in volume and stock piling at designated locations and disposal of dismantled materials stacking serviceable and unserviceable materials seperately complete as per specifications. MORTH Specification No. 202 (Page No-140 Item no - 18.47 of KPWD SR 2018-19)								
	For CC Road								
	Byrappa Garden								
	4th cross from Main road	2	15.00	1.15	1.20	1.18	0.15	5.29	
		2	15.00	1.20	1.25	1.23	0.15	5.51	
		2	6.90	1.25	1.20	1.23	0.15	2.54	
		1	18.00	4.45	5.75	5.10	0.15	13.77	
	3rd cross from Main road								
		2	15.00	1.10	1.25	1.18	0.15	5.29	
		2	15.00	1.25	1.20	1.23	0.15	5.51	
		2	5.70	1.20	1.20	1.20	0.15	2.05	
		1	15.00	4.50	4.50	4.50	0.15	10.13	
		1	11.85	4.50	4.95	4.73	0.15	8.40	
	2nd cross								
		1	15.00	4.25	4.45	4.35	0.15	9.79	
		1	15.00	4.45	4.70	4.58	0.15	10.29	
		1	7.90	4.70	5.00	4.85	0.15	5.75	
	Cross road from 1st to 5th cross								
		1	15.00	3.60	3.10	3.35	0.20	10.05	
		1	15.00	3.10	3.55	3.33	0.20	9.98	
		1	15.00	3.55	3.30	3.43	0.20	10.28	
		1	15.00	3.30	3.70	3.50	0.20	10.50	
		1	15.00	3.70	3.40	3.55	0.20	10.65	
		1	14.30	3.40	3.80	3.60	0.20	10.30	
	6th cross from Main road								
		1	20.00	4.75	4.60	4.68	0.15	14.03	
	1st A Main road								
		2	15.00	1.45	1.60	1.53	0.15	6.86	
		2	15.00	1.60	1.80	1.70	0.15	7.65	
		2	8.30	1.80	1.90	1.85	0.15	4.61	
		1	15.00	3.50	3.55	3.53	0.15	7.93	
		1	14.20	3.55	3.80	3.68	0.15	7.83	
	K.N.E. College 4th block								
	7th A Cross From Dead end								
		1	8.00	5.80	5.55	5.68	0.20	9.08	
		1	15.00	3.80	3.70	3.75	0.20	11.25	
		1	15.00	3.70	3.80	3.75	0.20	11.25	
		1	15.00	3.80	3.90	3.85	0.20	11.55	
		1	5.60	3.90	4.00	3.95	0.20	4.42	
	9th Cross From Main road								

Assistant Executive Engineer
Vijayanagara Sub Division
BDA, Bangalore-97

Item No	Discription of Item	No	Length	B1	B2	Breadth	Depth	Qty	Unit
		1	15.00	4.55	4.00	4.28	0.20	12.83	
		1	15.00	4.00	4.20	4.10	0.20	12.30	
		1	14.30	4.20	3.90	4.05	0.20	11.58	
		1	5.80	3.45	3.45	3.45	0.20	4.00	
	10th Cross From Main road								
		1	15.00	5.80	4.85	5.33	0.20	15.98	
		1	15.00	4.85	4.30	4.58	0.20	13.73	
		1	18.00	4.30	4.20	4.25	0.20	15.30	
	Ramakka-Dasappa Layout								
	2nd A cross								
		1	15.00	3.80	3.40	3.60	0.15	8.10	
		1	18.40	3.40	3.60	3.50	0.15	9.66	
		1	7.55	3.90	3.30	3.60	0.15	4.08	
		1	10.60	3.75	4.30	4.03	0.15	6.40	
	Perpendiculer road from 2nd A cross								
		1	3.70	5.40	5.20	5.30	0.15	2.94	
		1	14.80	4.70	3.70	4.20	0.15	9.32	
		1	15.00	3.30	3.40	3.35	0.15	7.54	
		1	15.00	3.40	3.80	3.60	0.15	8.10	
		1	12.30	3.80	3.60	3.70	0.15	6.83	
		1	8.50	2.90	2.60	2.75	0.15	3.51	
	Kateramma Layout								
	1st cross								
		1	15.00	4.85	4.30	4.58	0.20	13.73	
		1	15.00	4.30	4.55	4.43	0.20	13.28	
		1	18.70	4.55	5.00	4.78	0.20	17.86	
	2nd cross								
		1	15.00	5.00	4.70	4.85	0.20	14.55	
		1	15.00	4.70	4.55	4.63	0.20	13.88	
		1	19.00	4.55	4.00	4.28	0.20	16.25	
	Deductions								
	Byrappa Garden								
	Cross road from 1st to 5th cross								
	Electric Pole	-5	0.20	0.20	0.20	0.20	0.15	-0.03	
	Man Hole	-3	(3.142*0.9*0.9/4)				0.15	-0.29	
	6th cross from Main road								
	Man Hole	-2	(3.142*0.9*0.9/4)				0.15	-0.19	
	K.N.E. College 4th block								
	7th A Cross From Dead end								
	Electric Pole	-1	0.20	0.20	0.20	0.20	0.15	-0.01	
	Trees	-2	(3.142*0.45*0.45/4)				0.15	-0.05	
	10th Cross From Main road								
	Electric Pole	-1	0.20	0.20	0.20	0.20	0.15	-0.01	
	Man Hole	-2	(3.142*0.9*0.9/4)				0.15	-0.19	
	Vinayaka Temple Surroundings								
	Chamber	-1	2.30	1.90	1.90	1.90	0.15	-0.66	
	Steps	-1	2.45	0.85	0.85	0.85	0.15	-0.31	
		-1	1.00	0.35	0.35	0.35	0.15	-0.05	
	Column	-4	0.40	0.40	0.40	0.40	0.15	-0.10	

Item No	Discription of Item	No	Length	B1	B2	Breadth	Depth	Qty	Unit
	Temple	-1	4.90	5.12	5.12	5.12	0.15	-3.76	
		-1	3.15	2.50	2.50	2.50	0.15	-1.18	
	Ramakka-Dasappa Layout								
	2nd A cross								
	Ramp	-1	3.00	0.20	0.20	0.20	0.15	-0.09	
	Kateramma Layout								
	1st cross								
	Ramp	-1	1.30	1.00	1.00	1.00	0.15	-0.20	
		-1	1.00	0.40	0.40	0.40	0.15	-0.06	
		-1	4.00	1.00	1.00	1.00	0.15	-0.60	
		-1	3.00	1.00	1.00	1.00	0.15	-0.45	
		-1	4.00	0.50	0.50	0.50	0.15	-0.30	
	Man Hole	-1	(3.142*0.9*0.9/4)				0.15	-0.10	
	2nd cross								
	Ramp	-1	5.00	0.30	0.30	0.30	0.15	-0.23	
	Man Hole	-1	(3.142*0.9*0.9/4)				0.15	-0.10	
							Present Qty	**475.29**	**Cum**

PMC

Assistant Engineer
Ward No.10

Asst. Executive Engineer
Vidyaranya Pura Sub division

BVR Consulting Engineers Pvt. Ltd. Bangalore

Assistant Executive Engineer,
R.R. Nagar, Sub-Division,
KRIDL, BBMP, Bangalore

Name of Work :Improvements to Roads and Drains at Byarappa Garden, KNE College 4th Block,Kateramma Layout cross Roads in ward No 10 Doddabommasandra

Detailed measurements

Detailed measurement recorded on: 13/03/2020.

Item No	Discription of Item	No	Length	B1	B2	Avg Breadth	Depth	Qty	Unit
10	KSRRB 300-Compaction KSRRB 300-58. Compaction of original ground with maximum of 6 passes of 8 to 10 tonnes power roller including filling in depression occuring during rolling including cost of all labour, HOM of machinery complete as per specifications.(P.No. 147, I.No. 19.64 PWD SR 2018-19)								
	For CC Road								
	Byrappa Garden								
	4th cross from Main road								
		2	15.00	1.15	1.20	1.18		35.25	
		2	15.00	1.20	1.25	1.23		36.75	
		2	6.90	1.25	1.20	1.23		16.91	
		1	18.00	4.45	5.75	5.10		91.80	
		1	6.20	5.75	5.60	5.68		35.19	
		1	9.70	5.60	5.60	5.60		54.32	
	3rd cross from Main road								
		2	15.00	1.10	1.25	1.18		35.25	
		2	15.00	1.25	1.20	1.23		36.75	
		2	5.70	1.20	1.20	1.20		13.68	
		1	15.00	4.50	4.50	4.50		67.50	
		1	11.85	4.50	4.95	4.73		55.99	
	2nd cross								
		1	15.00	4.25	4.45	4.35		65.25	
		1	15.00	4.45	4.70	4.58		68.63	
		1	7.90	4.70	5.00	4.85		38.32	
	Cross road from 1st to 5th cross								
		1	15.00	3.60	3.10	3.35		50.25	
		1	15.00	3.10	3.55	3.33		49.88	
		1	15.00	3.55	3.30	3.43		51.38	
		1	15.00	3.30	3.70	3.50		52.50	
		1	15.00	3.70	3.40	3.55		53.25	
		1	14.30	3.40	3.80	3.60		51.48	
	6th cross from Main road								
		1	20.00	4.75	4.60	4.68		93.50	
	1st A Main road								
		2	15.00	1.45	1.60	1.53		45.75	
		2	15.00	1.60	1.80	1.70		51.00	
		2	8.30	1.80	1.90	1.85		30.71	
		1	15.00	3.50	3.55	3.53		52.88	
		1	14.20	3.55	3.80	3.68		52.19	
	K.N.E. College 4th block								
	7th A Cross From Dead end								
		1	8.00	5.80	5.55	5.68		45.40	
		1	15.00	3.80	3.70	3.75		56.25	
		1	15.00	3.70	3.80	3.75		56.25	
		1	15.00	3.80	3.90	3.85		57.75	

Assistant Executive Engineer, Mahadevapura Sub Division, BBMP, Bangalore-97

Item No	Discription of Item	No	Length	B1	B2	Avg Breadth	Depth	Qty	Unit
		1	5.60	3.90	4.00	3.95		22.12	
	9th Cross From Main road								
		1	15.00	4.55	4.00	4.28		64.13	
		1	15.00	4.00	4.20	4.10		61.50	
		1	14.30	4.20	3.90	4.05		57.92	
		1	5.80	3.45	3.45	3.45		20.01	
	10th Cross From Main road								
		1	15.00	5.80	4.85	5.33		79.88	
		1	15.00	4.85	4.30	4.58		68.63	
		1	18.00	4.30	4.20	4.25		76.50	
	Vinayaka Temple Surroundings								
		1	2.75	3.70	3.70	3.70		10.18	
		1	3.45	3.60	3.60	3.60		12.42	
		1	5.80	10.25	10.25	10.25		59.45	
		1	18.50	10.20	10.60	10.40		192.40	
		1	15.60	1.60	1.60	1.60		24.96	
		1	18.80	1.50	1.60	1.55		29.14	
	Ramakka-Dasappa Layout								
	2nd A cross								
		1	15.00	3.80	3.40	3.60		54.00	
		1	18.40	3.40	3.60	3.50		64.40	
		1	7.55	3.90	3.30	3.60		27.18	
		1	10.60	3.75	4.30	4.03		42.67	
	Perpendiculer road from 2nd A cross								
		1	3.70	5.40	5.20	5.30		19.61	
		1	14.80	4.70	3.70	4.20		62.16	
		1	15.00	3.30	3.40	3.35		50.25	
		1	15.00	3.40	3.80	3.60		54.00	
		1	12.30	3.80	3.60	3.70		45.51	
		1	8.50	2.90	2.60	2.75		23.38	
	Kateramma Layout								
	1st cross								
		1	15.00	4.85	4.30	4.58		68.63	
		1	15.00	4.30	4.55	4.43		66.38	
		1	18.70	4.55	5.00	4.78		89.29	
	2nd cross								
		1	15.00	5.00	4.70	4.85		72.75	
		1	15.00	4.70	4.55	4.63		69.38	
		1	19.00	4.55	4.00	4.28		81.23	
	Deductions								
	Byrappa Garden								
	Cross road from 1st to 5th cross								
	Electric Pole	-5	0.20	0.20	0.20	0.20		-0.20	
	Man Hole	-3	(3.142*0.9*0.9/4)					-1.91	
	6th cross from Main road								
	Man Hole	-2	(3.142*0.9*0.9/4)					-1.27	
	K.N.E. College 4th block								
	7th A Cross From Dead end								
	Electric Pole	-1	0.20	0.20	0.20	0.20		-0.04	
	Trees	-2	(3.142*0.45*0.45/4)					-0.32	
	10th Cross From Main road								
	Electric Pole	-1	0.20	0.20	0.20	0.20		-0.04	

Assistant Executive Engineer
Vidyaranyapura Sub Division
BBMP, Bangalore - 97

Item No	Discription of Item	No	Length	B1	B2	Avg Breadth	Depth	Qty	Unit
	Man Hole	-2	(3.142*0.9*0.9/4)					-1.27	
	Vinayaka Temple Surroundings								
	Chamber	-1	2.30	1.90	1.90	1.90		-4.37	
	Steps	-1	2.45	0.85	0.85	0.85		-2.08	
		-1	1.00	0.35	0.35	0.35		-0.35	
	Column	-4	0.40	0.40	0.40	0.40		-0.64	
	Temple	-1	4.90	5.12	5.12	5.12		-25.09	
		-1	3.15	2.50	2.50	2.50		-7.88	
	Ramakka-Dasappa Layout								
	2nd A cross								
	Ramp	-1	3.00	0.20	0.20	0.20		-0.60	
	Kateramma Layout								
	1st cross								
	Ramp	-1	1.30	1.00	1.00	1.00		-1.30	
		-1	1.00	0.40	0.40	0.40		-0.40	
		-1	4.00	1.00	1.00	1.00		-4.00	
		-1	3.00	1.00	1.00	1.00		-3.00	
		-1	4.00	0.50	0.50	0.50		-2.00	
	Man Hole	-1	(3.142*0.9*0.9/4)					-0.64	
	2nd cross								
	Ramp	-1	5.00	0.30	0.30	0.30		-1.50	
	Man Hole	-1	(3.142*0.9*0.9/4)					-0.64	
							Present Qty	**312.45**	**Sqm**

PMC

BVH Consulting Engineers Pvt. Ltd. Bangalore

Assistant Engineer
Ward No.10

Asst. Executive Engineer,
Vidyaranya Pura Sub division

Assistant Executive Engineer,
Vidyaranyapura Sub Divis
BBMP, Bangalore - 97

Assistant Executive Engineer,
R.R. Nagar, Sub-Division,
KRIDL, BBMP, Bangalore

Name of Work :Improvements to Roads and Drains at Byarappa Garden, KNE College 4th Block,Kateramma Layout cross Roads in ward No 10 Doddabommasandra

Pre measurements

Pre measurement recorded on: 12/05/2020.

Item No	Discription of Item	No	Length	B1	B2	Avg Breadth	Depth	Qty	Unit
11	KSRRB M400- Wet Mix Macadam KSRRB M400-17. Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406 (Page No.155.tem No.20.18,PW,P & IWTD SR 2018-19)								
	For CC Road								
	Byrappa Garden								
	4th cross from Main road								
		2	15.00	1.15	1.20	1.18	0.15	5.29	
		2	15.00	1.20	1.25	1.23	0.15	5.51	
		2	6.90	1.25	1.20	1.23	0.15	2.54	
		1	18.00	4.45	5.75	5.10	0.15	13.77	
		1	6.20	5.75	5.60	5.68	0.15	5.28	
		1	9.70	5.60	5.60	5.60	0.15	8.15	
	3rd cross from Main road								
		2	15.00	1.10	1.25	1.18	0.15	5.29	
		2	15.00	1.25	1.20	1.23	0.15	5.51	
		2	5.70	1.20	1.20	1.20	0.15	2.05	
		1	15.00	4.50	4.50	4.50	0.15	10.13	
		1	11.85	4.50	4.95	4.73	0.15	8.40	
	2nd cross								
		1	15.00	4.25	4.45	4.35	0.15	9.79	
		1	15.00	4.45	4.70	4.58	0.15	10.29	
		1	7.90	4.70	5.00	4.85	0.15	5.75	
	Cross road from 1st to 5th cross								
		1	15.00	3.60	3.10	3.35	0.15	7.54	
		1	15.00	3.10	3.55	3.33	0.15	7.48	
		1	15.00	3.55	3.30	3.43	0.15	7.71	
		1	15.00	3.30	3.70	3.50	0.15	7.88	
		1	15.00	3.70	3.40	3.55	0.15	7.99	
		1	14.30	3.40	3.80	3.60	0.15	7.72	
	6th cross from Main road								
		1	20.00	4.75	4.60	4.68	0.15	14.03	
	1st A Main road								
		2	15.00	1.45	1.60	1.53	0.15	6.86	
		2	15.00	1.60	1.80	1.70	0.15	7.65	
		2	8.30	1.80	1.90	1.85	0.15	4.61	
		1	15.00	3.50	3.55	3.53	0.15	7.93	
		1	14.20	3.55	3.80	3.68	0.15	7.83	
	K.N.E. College 4th block								

Assistant Executive Engineer
Vijayanagara Sub Division
BBMP, Bangalore - 97

Item No	Discription of Item	No	Length	B1	B2	Avg Breadth	Depth	Qty	Unit
	7th A Cross From Dead end								
		1	8.00	5.80	5.55	5.68	0.15	6.81	
		1	15.00	3.80	3.70	3.75	0.15	8.44	
		1	15.00	3.70	3.80	3.75	0.15	8.44	
		1	15.00	3.80	3.90	3.85	0.15	8.66	
		1	5.60	3.90	4.00	3.95	0.15	3.32	
	9th Cross From Main road								
		1	15.00	4.55	4.00	4.28	0.15	9.62	
		1	15.00	4.00	4.20	4.10	0.15	9.23	
		1	14.30	4.20	3.90	4.05	0.15	8.69	
		1	5.80	3.45	3.45	3.45	0.15	3.00	
	10th Cross From Main road								
		1	15.00	5.80	4.85	5.33	0.15	11.98	
		1	15.00	4.85	4.30	4.58	0.15	10.29	
		1	18.00	4.30	4.20	4.25	0.15	11.48	
	Vinayaka Temple Surroundings								
		1	2.75	3.70	3.70	3.70	0.15	1.53	
		1	3.45	3.60	3.60	3.60	0.15	1.86	
		1	5.80	10.25	10.25	10.25	0.15	8.92	
		1	18.50	10.20	10.60	10.40	0.15	28.86	
		1	15.60	1.60	1.60	1.60	0.15	3.74	
		1	18.80	1.50	1.60	1.55	0.15	4.37	
	Ramakka-Dasappa Layout								
	2nd A cross								
		1	15.00	3.80	3.40	3.60	0.15	8.10	
		1	18.40	3.40	3.60	3.50	0.15	9.66	
		1	7.55	3.90	3.30	3.60	0.15	4.08	
		1	10.60	3.75	4.30	4.03	0.15	6.40	
	Perpendiculer road from 2nd A cross								
		1	3.70	5.40	5.20	5.30	0.15	2.94	
		1	14.80	4.70	3.70	4.20	0.15	9.32	
		1	15.00	3.30	3.40	3.35	0.15	7.54	
		1	15.00	3.40	3.80	3.60	0.15	8.10	
		1	12.30	3.80	3.60	3.70	0.15	6.83	
		1	8.50	2.90	2.60	2.75	0.15	3.51	
	Kateramma Layout								
	1st cross								
		1	15.00	4.85	4.30	4.58	0.15	10.29	
		1	15.00	4.30	4.55	4.43	0.15	9.96	
		1	18.70	4.55	5.00	4.78	0.15	13.39	
	2nd cross								
		1	15.00	5.00	4.70	4.85	0.15	10.91	
		1	15.00	4.70	4.55	4.63	0.15	10.41	
		1	19.00	4.55	4.00	4.28	0.15	12.18	
	Deductions								
	Byrappa Garden								
	Cross road from 1st to 5th cross								
	Electric Pole	-5	0.20	0.20	0.20	0.20	0.15	-0.03	
	Man Hole	-3	(3.142*0.9*0.9/4)				0.15	-0.29	

Item No	Discription of Item	No	Length	B1	B2	Avg Breadth	Depth	Qty	Unit
	6th cross from Main road								
	Man Hole	-2		(3.142*0.9*0.9/4)			0.15	-0.19	
	K.N.E. College 4th block								
	7th A Cross From Dead end								
	Electric Pole	-1	0.20	0.20	0.20	0.20	0.15	-0.01	
	Trees	-2		(3.142*0.45*0.45/4)			0.15	-0.05	
	10th Cross From Main road								
	Electric Pole	-1	0.20	0.20	0.20	0.20	0.15	-0.01	
	Man Hole	-2		(3.142*0.9*0.9/4)			0.15	-0.19	
	Vinayaka Temple Surroundings								
	Chamber	-1	2.30	1.90	1.90	1.90	0.15	-0.66	
	Steps	-1	2.45	0.85	0.85	0.85	0.15	-0.31	
		-1	1.00	0.35	0.35	0.35	0.15	-0.05	
	Column	-4	0.40	0.40	0.40	0.40	0.15	-0.10	
	Temple	-1	4.90	5.12	5.12	5.12	0.15	-3.76	
		-1	3.15	2.50	2.50	2.50	0.15	-1.18	
	Ramakka-Dasappa Layout								
	2nd A cross								
	Ramp	-1	3.00	0.20	0.20	0.20	0.15	-0.09	
	Kateramma Layout								
	1st cross								
	Ramp	-1	1.30	1.00	1.00	1.00	0.15	-0.20	
		-1	1.00	0.40	0.40	0.40	0.15	-0.06	
		-1	4.00	1.00	1.00	1.00	0.15	-0.60	
		-1	3.00	1.00	1.00	1.00	0.15	-0.45	
		-1	4.00	0.50	0.50	0.50	0.15	-0.30	
	Man Hole	-1		(3.142*0.9*0.9/4)			0.15	-0.10	
	2nd cross								
	Ramp	-1	5.00	0.30	0.30	0.30	0.15	-0.23	
	Man Hole	-1		(3.142*0.9*0.9/4)			0.15	-0.10	
							Present Qty	**466.87**	**Cum**

PMC

Assistant Engineer
Ward No.10

Asst. Executive Engineer,
Vidyaranya Pura Sub division

Assistant Executive Engineer
Vidyaranyapura Sub Division
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Assistant Executive Engineer,
R.R. Nagar, Sub-Division,
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